



CULLINAN RANCH & SKAGGS ISLAND

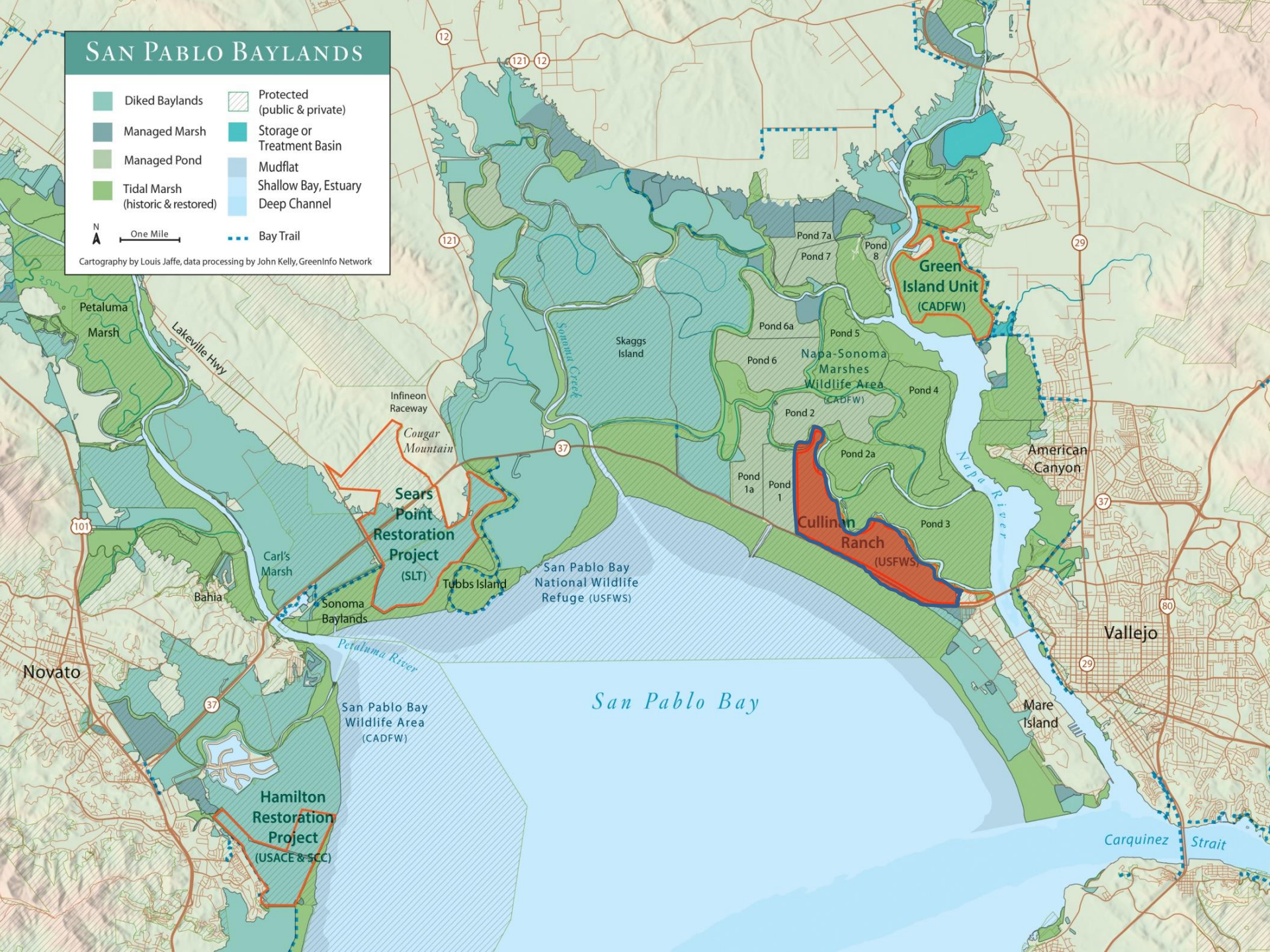
Project Update

NSMRG

12/7/17

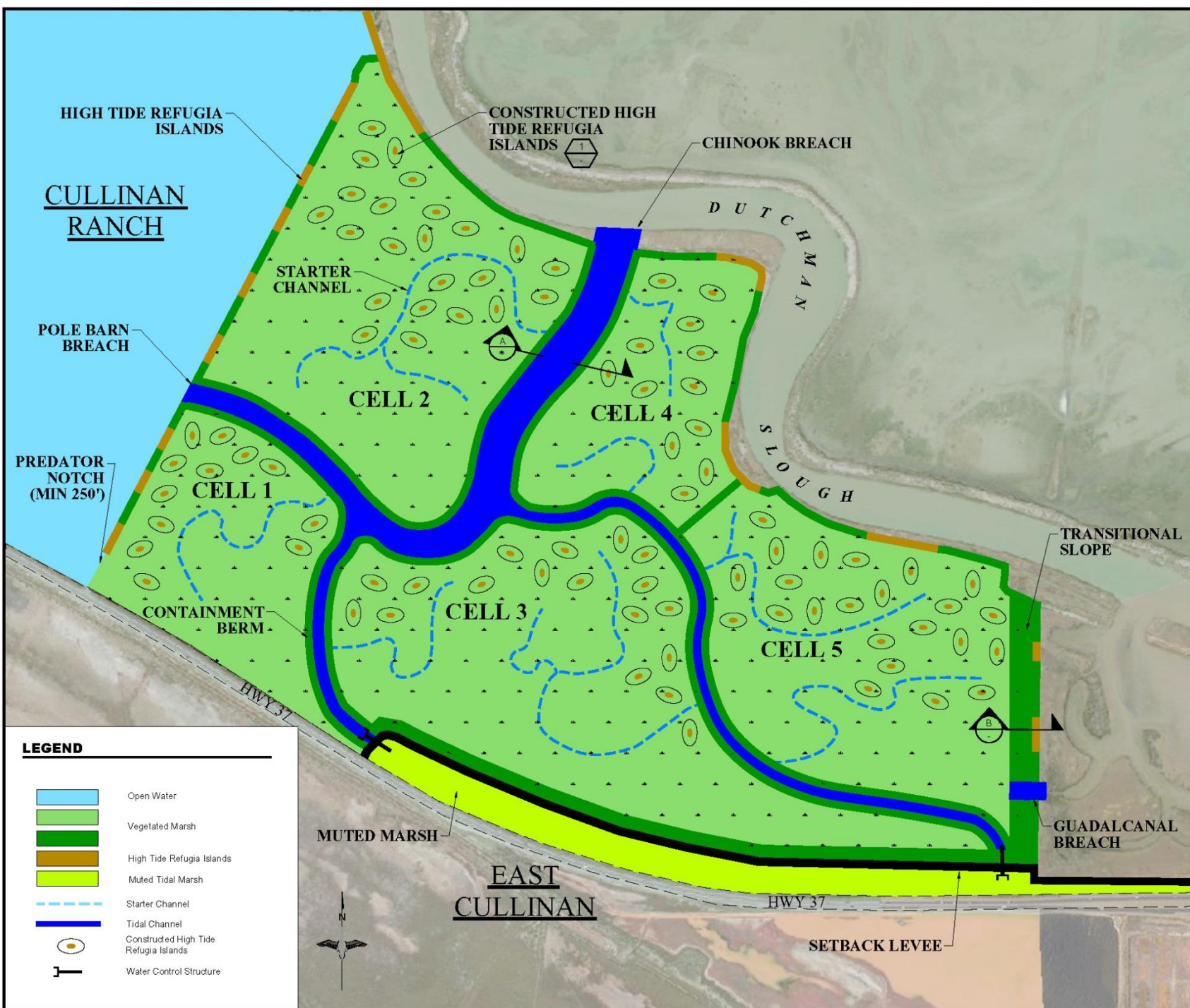
Russ Lowgren, P.E.
Regional Engineer
Ducks Unlimited

SAN PABLO BAYLANDS



- 1200 Acres breached 2015
- 300 Acres set aside for Beneficial Reuse



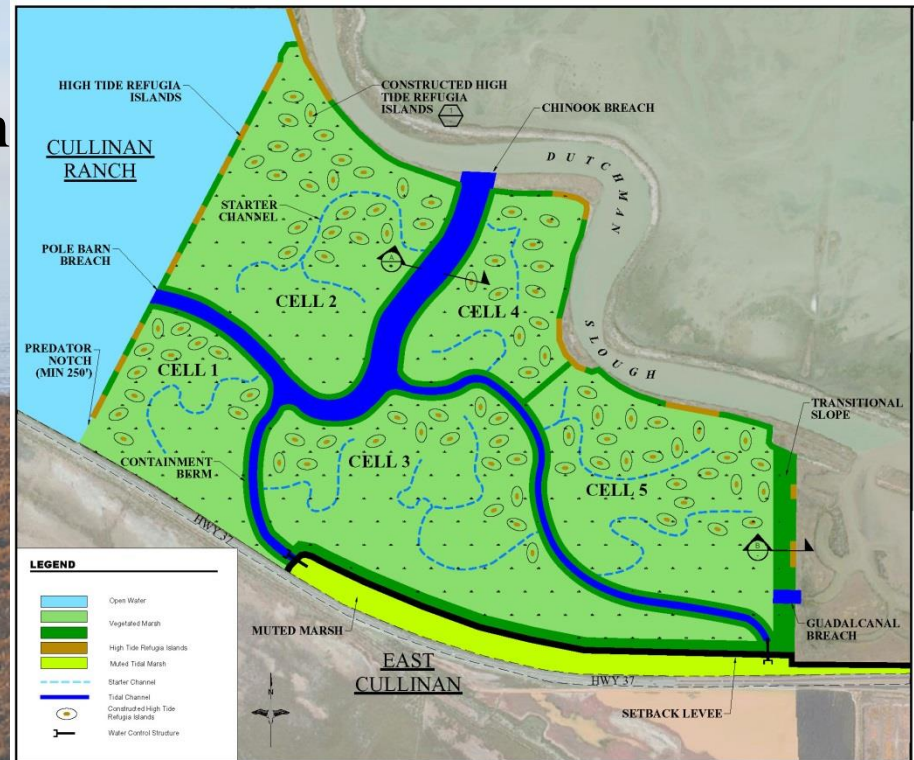


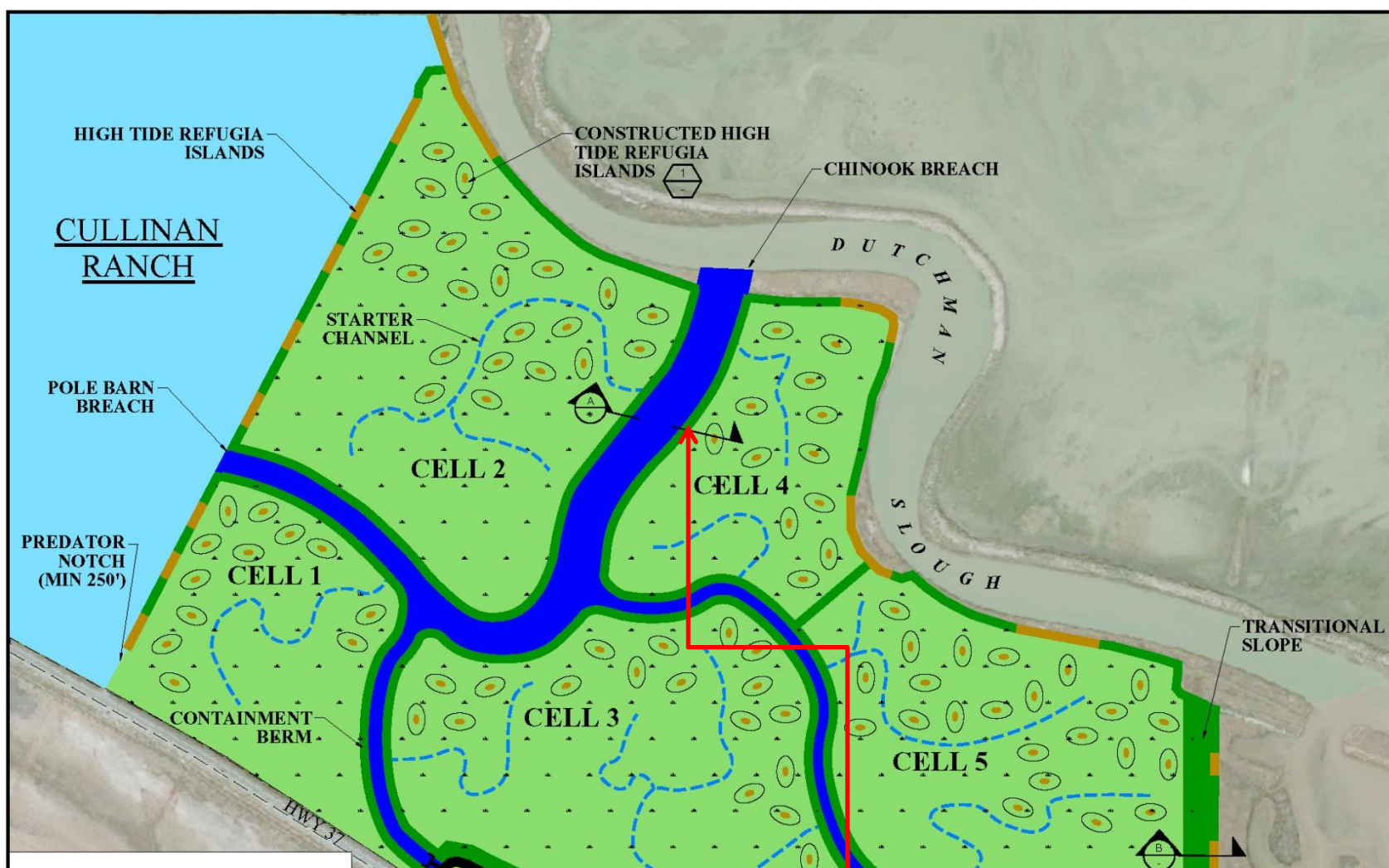
CULLINAN RANCH

Tidal Restoration Project

OVERVIEW

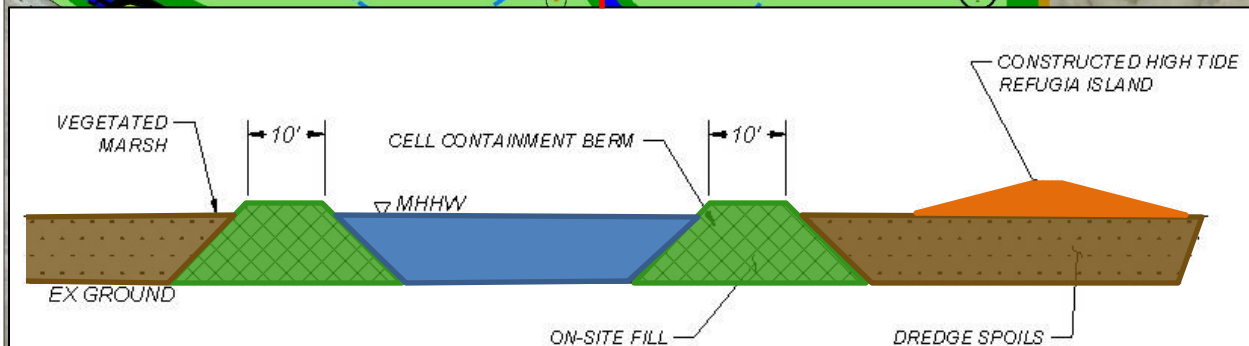
- ~3,000,000 CY total capacity
- Subdivided into 5 Cells by constructing levees
- Islands and channels constructed within cells
- Interior channel flooded through tidal structure. Eventually breached to Dutchman Slough
- Channel used to flood or drain the cells





LEGEND

- Open Water
- Vegetated Marsh
- High Tide Refugia Islands
- Muted Tidal Marsh
- Starter Channel
- Tidal Channel
- Constructed High Tide Refugia Islands
- Water Control Structure





Cell 2

Cell 4

Cell 1

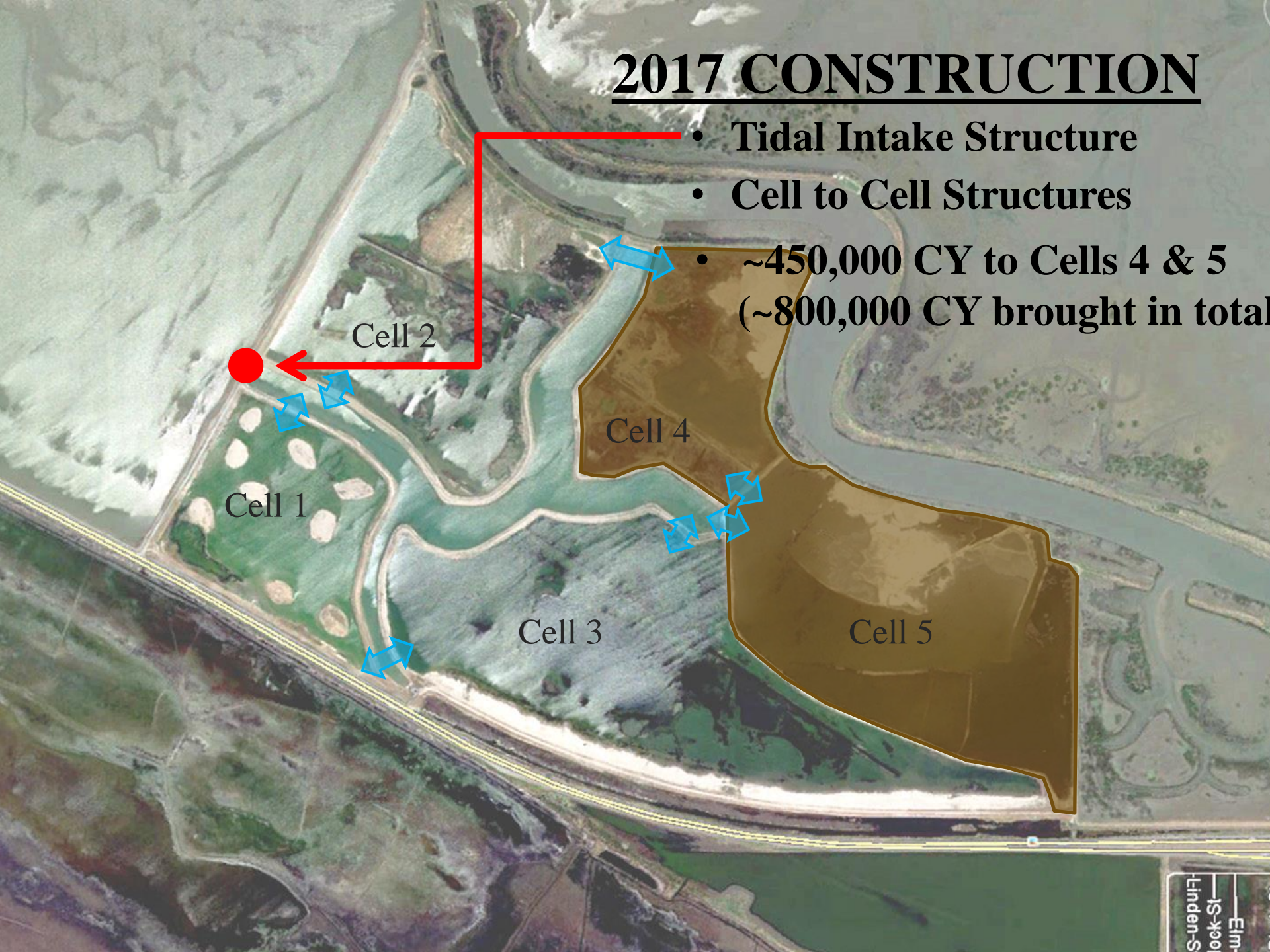
Cell 3

Cell 5

Elm
IS-900
Linden-S

2017 CONSTRUCTION

- Tidal Intake Structure
- Cell to Cell Structures
- ~450,000 CY to Cells 4 & 5
(~800,000 CY brought in total)





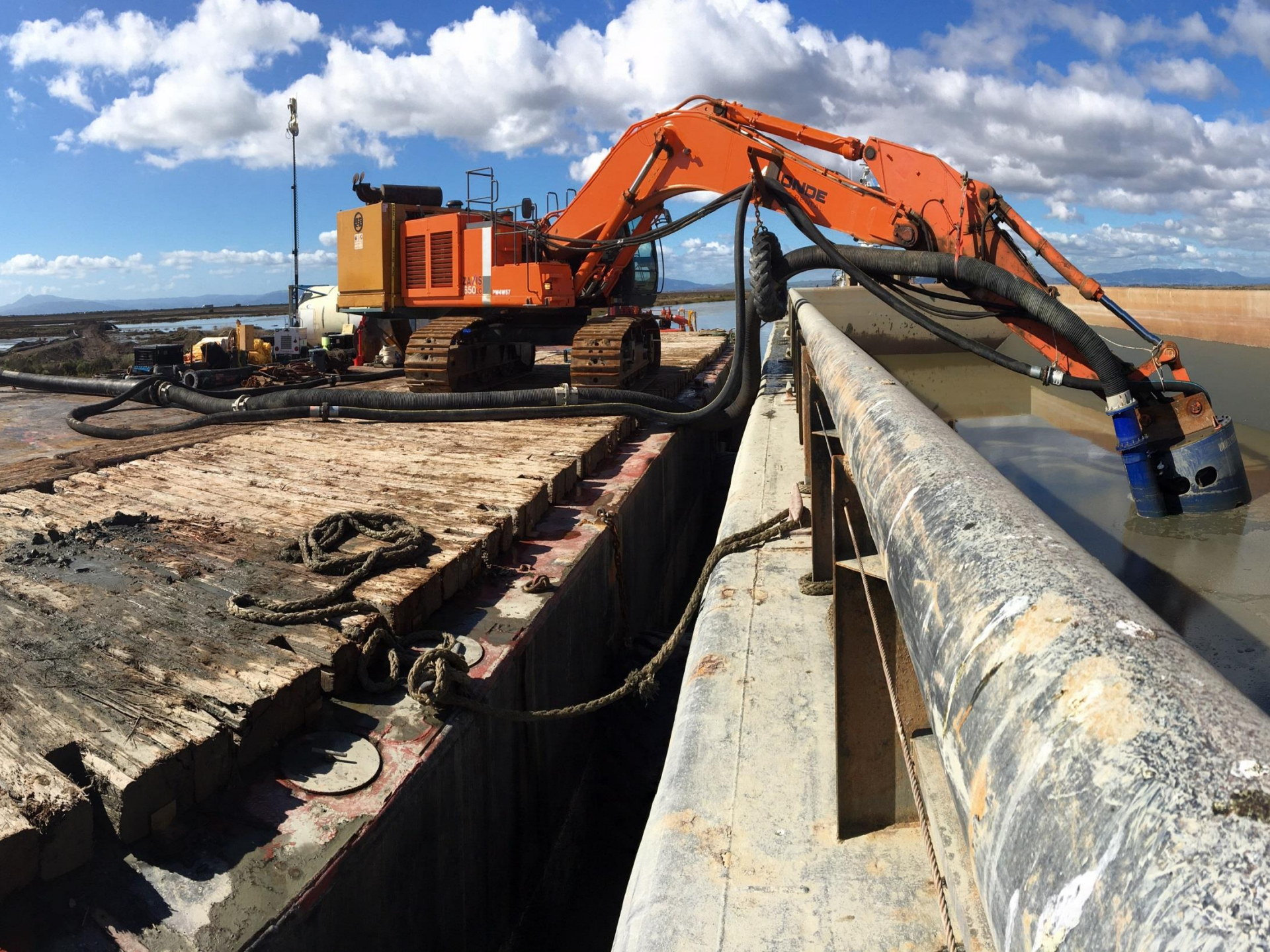














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SAN PABLO BAYLANDS / SKAGGS ISLAND / HAIRE RANCH

- Diked Baylands
- Managed Marsh
- Managed Pond
- Tidal Marsh (historic & restored)
- Protected (public & private)
- Storage or Treatment Basin
- Mudflat
- Shallow Bay, Estuary
- Deep Channel
- Bay Trail

N
One Mile

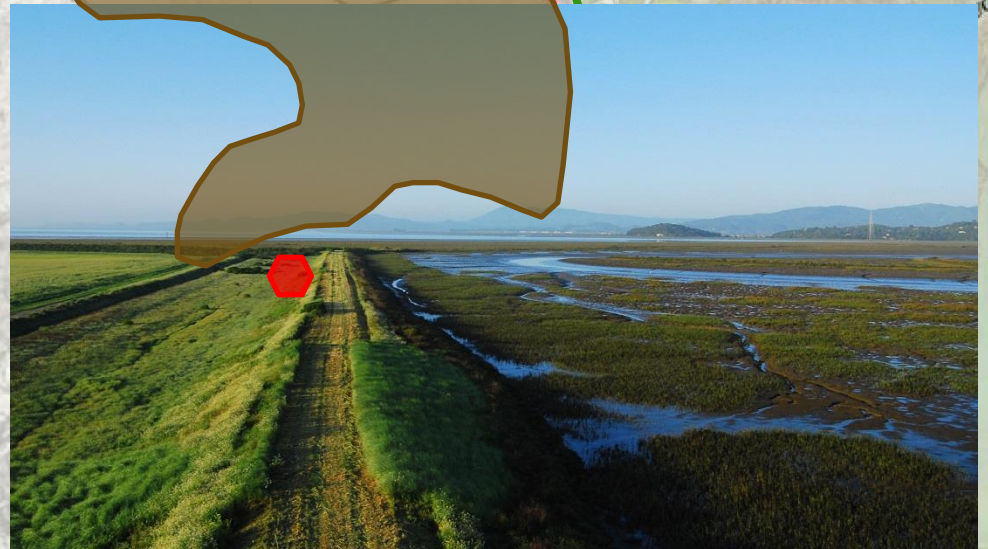
Cartography by Louis Jaffe, data processing by John Kelly, GreenInfo Network



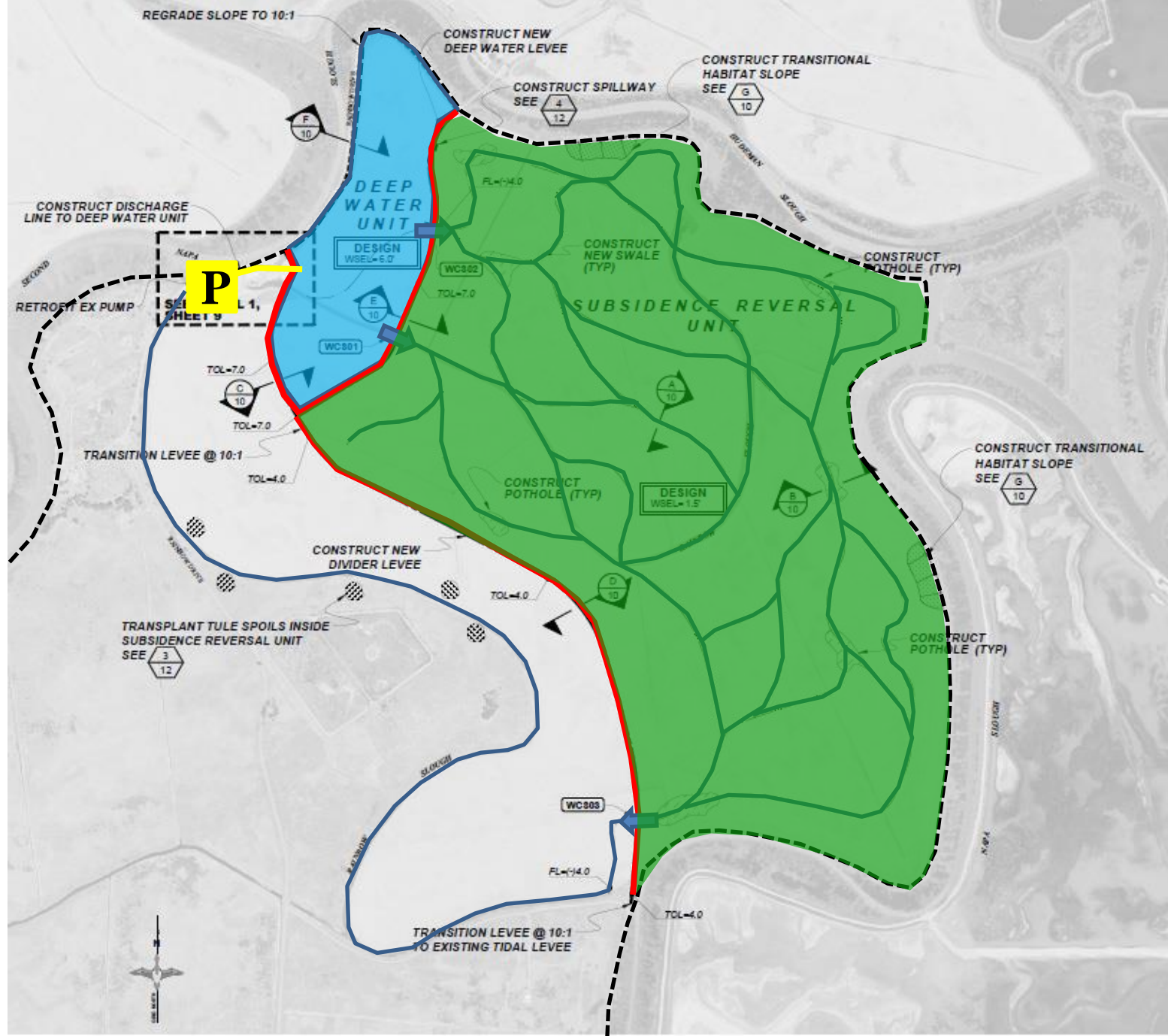
SKAGGS ISLAND / HAIRE RANCH

Major Challenges:

- Subsidence & SLR
- Infrastructure
- VORTAC
- Haire Ranch



Over 126 miles of levee and a obligation that
Approximately 50-60 million the BFI Bay needed!
restored, 50 acres by 2018









SKAGGS ISLAND / HAIRE RANCH

What's on the horizon?

- **Haire Ranch restoration completed - Fall 2018**
- **Skaggs Island preliminary design – 2018**
- **Environmental planning & permitting – 2018 & 2019**



SKAGGS ISLAND / HAIRE RANCH

Questions?

